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ABSTRACT

A study examined the links among mothers' endorsement of developmental goals, use of competence-promoting parenting practices, youth self-regulation, and academic and psychosocial outcomes. A sample of 175 single-mother-headed African American families with a 6- to 9-year-old child was recruited from nonmetropolitan counties in Georgia. Interviews and videotapes of mothers and children interacting were conducted over a 3-year period. A conceptual model that included maternal education, maternal religiosity, and the adequacy of family financial resources was tested. Results indicated that (1) more highly educated mothers perceived their finances to be adequate, had better relationships with their children, and were more involved with their children's schools; (2) mothers who were more religious used "no nonsense" parenting practices more often, had better relationships with their children, and were more involved in the children's school activities; (3) mothers who perceived less financial stress believed themselves to be more efficacious parents, enforced more competence-promoting developmental goals, and used more competence-promoting parenting practices; and (4) greater financial resources were linked with less maternal depression and more maternal optimism. Data were collected from 130 of the children's elementary classroom teachers. Both teachers and children completed a five-item measure to assess teachers' classroom practices. Results indicated that more competence-promoting parenting and more effective teaching were associated with greater self-regulation and higher levels of social competence in the children, which was associated with better psychosocial outcomes. (Contains seven figures of data.) (RS)

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We are currently into our last year of funding and are scheduled to complete our final wave of data collection as per the time line in the original proposal. As we will detail in this section, we have (1) developed the measures and methodology used in this study with the collaboration and assistance of rural African American community members; (2) recruited a sample of 175 single-mother-headed families with a 7- to 9-year old child who live in small towns and communities in rural Georgia; (3) retained 97% of the sample over 3 years; (4) used a multimethod design, which included in-home interviews with mothers, extended family caregivers, and children, teacher reports, and assessments of mother-child interaction using both structured videotaped interaction and in-home ratings, for each wave of data collection; (5) using the multimethod data from wave 1, specified paths from maternal financial and personal resources, mothers' beliefs about the efficacy of their parenting, developmental goals, family processes, and home management practices to children's self-regulation, academic performance, and psychosocial adjustment; and (6) conducted pilot analyses of the unique and combined contributions of family and classroom processes to children's self-regulation, academic performance, and psychosocial adjustment.

Development of Measures with the Assistance of Community Members

We spent the first three months of our project consulting persons of the same ethnicity and from similar backgrounds as the prospective participants in our study, for feedback about our measures and methodology. We were concerned about the accurate assessment of the population we were to study, because most instruments used to evaluate family processes and individual outcomes have been developed for use with, and standardized on, White, middle-class families. Consequently, the available measures may not validly describe family dynamics among rural African Americans. We dealt with this issue through the formation of focus groups comprised of rural African American community members. We found this strategy to be very productive in an earlier study involving rural African American families headed by married couples (Brody et al., 1994, 1995a, 1995b, 1996). The final focus group included 55 people from throughout Georgia who were representative of the population we planned to study.

The group addressed two measurement issues, the first of which concerned the development of valid self-report instruments. Each group member rated each instrument that we planned to use on a 5-point Likert-type scale ranging from 1 = not appropriate for rural African American families through 3 = appropriate to 5 = very appropriate. Those instruments that attained a mean rating of at least 3.5 were retained. The focus groups reviewed each item on each scale and suggested wording changes, as well as the deletion of items that they perceived as unclear or irrelevant to rural African Americans.

The second issue concerned our plan to videotape family interactions. In past projects involving either African American or White families, we have found the videotaping of these interactions to be essential to the close study of family relationships. The focus group suggested that this procedure be made as nonthreatening as possible by recording no interactions involving finances or other sensitive information.

Participants

A sample of 175 single-mother-headed African American families with a 6- to 9-year old child was recruited from nonmetropolitan counties in Georgia. To date, we have retained 97% of the families in our sample over a 3-year period. We have used a variety of attrition reduction strategies that succeeded in other longitudinal studies of African American and White families, such as periodic phone contacts with families, newsletters, and the sending of birthday and holiday cards.

Data Collection

The first wave of home visits has been completed on 175 families. The last wave of data collection is in progress. Two home visits take place during each wave. During these visits, demographic information is gathered, self-report assessments are administered to family members using interview procedures, and videotapes are made of the

mother and child interacting in 3 activity contexts. Videotape coding has been completed for all families for waves 1 and 2.

Originial Specific Aims

The specific aims of the original proposal were:

1. to examine the links among mothers' endorsement of developmental goals, use of competence-promoting parenting practices, youth self-regulation, and academic and psychosocial outcomes;

2. to explore the association of mothers' and extended family caregivers' congruence on developmental goals and rearing practices with children's self-regulation;

3. to explore the associations of supportive, communicative, nonconflicted relationships between mothers and extended family caregivers with self-regulation;
4. to explore the associations among economic pressure, maternal depression, and support from extended kin;

5. to explore the association between mothers' depression and their use of competence-promoting parenting practices; and

6. to examine the associations among child temperament, family processes, and self-regulation.

As a progress report on our accomplishments over the last 4 years, we now present some of the research results from analyses that support our hypotheses.

Maternal Personal and Financial Resources, Religiosity, Parenting, and Child Competence

In the first analysis of the wave 1 data we tested a conceptual model that included maternal education, maternal religiosity, and the adequacy of family financial resources as distal parameters. We predicted that higher maternal education would be associated with better occupational prospects, which would be linked to more adequate family financial resources. The adequacy of family financial resources was hypothesized to mediate the impact of maternal education on the parenting variables. Based upon research cited in Section B that describes the potential benefits of African Americans' religious participation, particularly as a coping mechanism for negotiating life stresses, we predicted that religiosity would be positively linked with the parenting parameters. We hypothesized that the distal parameters would be indirectly associated with no nonsense parenting practices assessed using the HOME scales, mother-child relationship quality assessed from the observational ratings, and the mothers' involvement with their children's schools as reported by teachers. These latter constructs were conceptualized as proximal variables, which we predicted would serve as mediators connecting earlier steps in the model to self-regulation. We expected self-regulation, a latent construct derived from mothers' and teachers' assessments, to be linked in turn to academic and psychosocial competence. The assessments of academic competence included subscales from the Woodcock-Johnson Psychoeducational Battery that were administered individually to each child at one of the home visits. A latent construct was formed from mothers' and teachers' ratings of the child's cognitive competence, using the Cognitive subscale of Harter's (1982) Perceived Co mpetence Scale for Children. Other latent constructs based on mothers' and teachers' ratings were formed, using Harter's Social Competence subscale as a social competence construct, the Conduct Disorders subscale from the Revised Behavior Problem Checklist (RBPC; Quay & Peterson, 1987) for the externalizing construct, and a revised version of the Children's Depression Inventory (Kovacs, 1981) for internalizing problems.

Latent Variable Path Analysis with Partial Least Squares estimation procedures (LVPLS) was used to examine the hypothesized paths. It is part of a family of statistical procedures known as component analyses, of which principal component analysis and canonical correlation are most well known. We did not use LISREL because the sample size for these analyses was 136. Although many investigators use LISREL with samples of this size, we prefer to use it with at least 150 cases. These analyses were executed before data collection from all families was completed during wave 1, to allow us to disseminate data from the project.

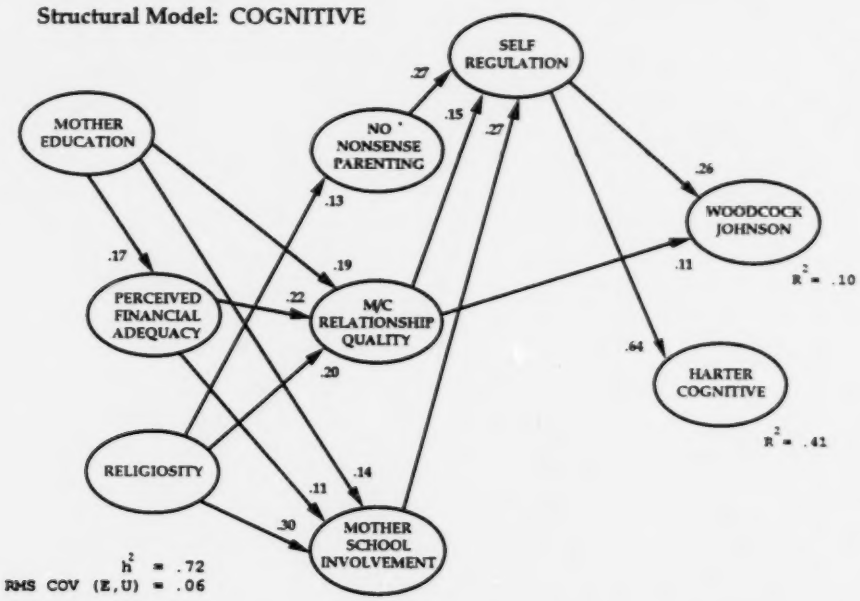
Structural equation modeling with partial least squares was developed by Wold (1975) for situations in which data do not meet the highly restrictive assumptions that underlie maximum likelihood techniques such as LISREL (see Falk & Miller, 1991). The advantage of LVPLS over other regression analyses is that it allows the assessment of both direct and indirect effects, both of which are included in our hypotheses. This is another reason for our use of it here.

Goodness-of-fit indices assess the extent to which the model reproduces the actual covariance matrix. The coefficient RMS COV (EU), which stands for the root mean square of the covariance between the residuals of the manifest and latent variables, is an index of the overall model's fit with the raw data. This coefficient would be 0 in a model that describes with complete accuracy the relationships between the variables. A coefficient of .20 indicates a poor model, and a coefficient of, for example, .02 indicates a superior one. The structural portion of the model can also be evaluated by examining the squared multiple correlations of endogenous latent variables, which should at least be greater than or equal to 10.

As a form of data reduction, manifest variables are combined into theoretical components, resulting in multiple measurement of latent components. This capitalizes on the advantages of composited variables based on shared variance. The LVPLS program uses composite weights to create latent variables and to optimize linear relationships between predictor and predicted components. Paths between the theoretical constructs are standardized path coefficients or beta weights, and each is estimated after controlling for the effects of all the other paths in the model.

The direct links in the cognitive competence model (see Figure 1) show that more highly educated mothers perceived their finances to be more adequate, had better relationships with their children, and were more involved with their children's schools. An indirect link also connected higher educational levels among mothers with better mother-child relationships and more involvement in the children's schooling, through perceptions of greater financial adequacy.

Figure 1



Mothers who were more religious used no nonsense parenting practices more often, had better relationships with their children, and were more involved in their children's school activities. Indirect effects between the distal variables and children's self-regulation also emerged. Mothers who were more highly educated and who perceived their finances to be more adequate had better relationships with their children and were more involved with the children's schools; these, in turn, were associated with greater self-regulation among the children. Religiosity was indirectly linked with self-regulation through its associations with no nonsense parenting, mother-child relationship quality, and school involvement. Children who were more self-regulated achieved higher scores on the Woodcock-Johnson Battery and the Harter assessment of cognitive competence.

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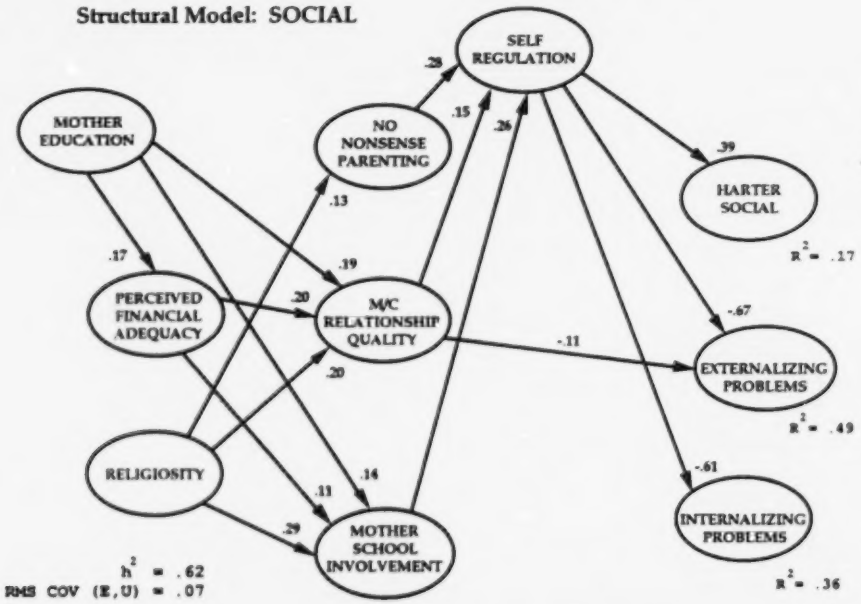
Inconsistent with the theoretical model, the effects of no nonsense parenting, mother-child relationship quality, and mother's school involvement on cognitive competence were mainly indirect, through self-regulation. Only one direct effect emerged: When mother-child relationships were more harmonious, children performed better on the Woodcock-Johnson achievement test.

Figure 2

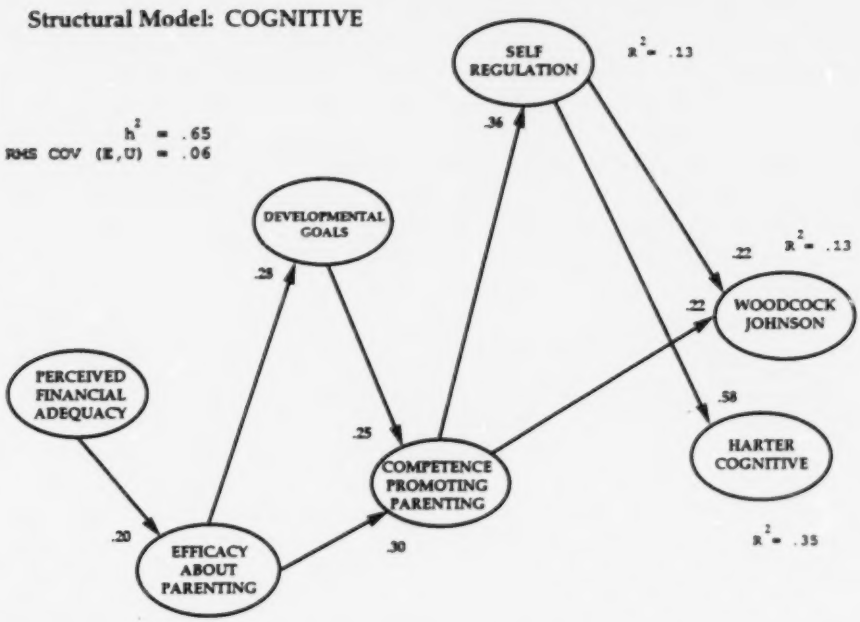


The associations that emerged in the psychosocial model (see Figure 2) are similar to those that emerged in the cognitive competence model. More use of no nonsense parenting practices, better mother-child relationships, and more involvement in school activities were linked with more self-regulation among the children. Children who were more self-regulated, in turn, achieved higher scores on the Harter assessment of social competence, and experienced fewer internalizing and externalizing problems. Again, one direct effect emerged, between more harmonious mother-child relationships and fewer externalizing problems among the children. Thus, the development of self-regulation seems to be a pivotal process that connects aspects of the parent-child relationship to both cognitive and psychosocial outcomes among rural African American children living in single-mother-headed families.

Family Financial Resources, Maternal Parenting Efficacy Beliefs, Developmental Goals, Competence-Promoting Parenting, and Child Outcomes

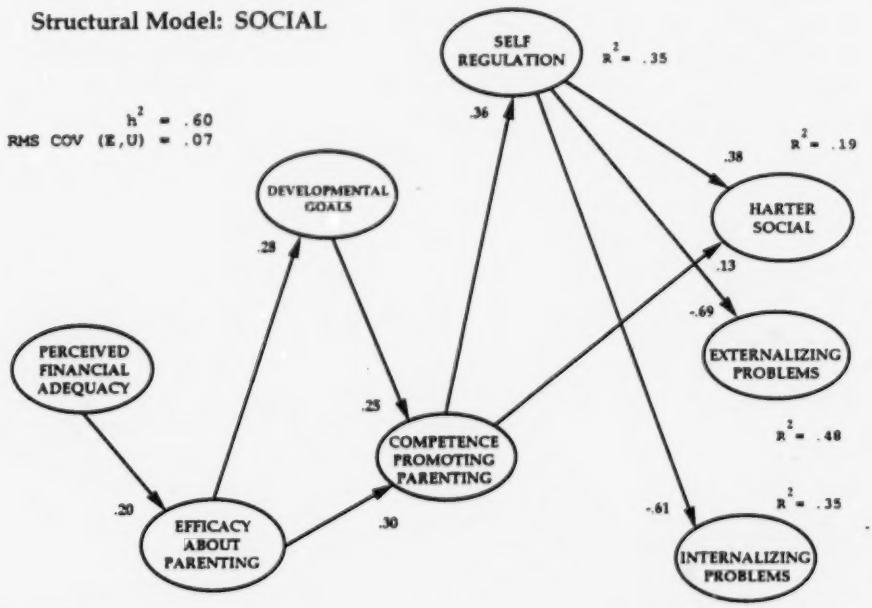
In the second analysis we tested the relationships among three distal parameters--financial resources, mothers' beliefs about their efficacy with specific parenting behaviors, and developmental goals--as well as their links with a composite index of variables that we termed competence-promoting parenting practices: no nonsense parenting, predictable family routines, harmonious mother-child relationship quality, and mother's involvement in the child's education. We hypothesized that financial stress would be linked negatively with parenting efficacy and with the endorsement of competence-promoting developmental goals. We also hypothesized that efficacy beliefs would be positively linked with the endorsement of competence-promoting goals. Both developmental goals and parenting efficacy were hypothesized to be indirectly associated with self-regulation through their links with competence-promoting parenting practices. Self-regulation was hypothesized to mediate the links from competence-promoting parenting practices to academic and psychosocial outcomes. These data were also examined using LVPLS; the results are presented in Figures 3 and 4 for the cognitive and social models, respectively.

Figure 3



The structural models were consistent with our hypotheses. Mothers who perceived less financial stress believed themselves to be more efficacious parents. These mothers endorsed more competence-promoting developmental goals and, in turn, used more competence-promoting parenting practices. Self-regulation was again a pivotal process that linked parenting practices to cognitive and psychosocial outcomes. Mothers' use of more competence-promoting parenting practices was directly linked to higher scores on the Woodcock-Johnson cognitive assessment and the social competence psychosocial assessment. Taken together, these analyses provide support for the hypotheses proposed in the competing continuation.

Figure 4



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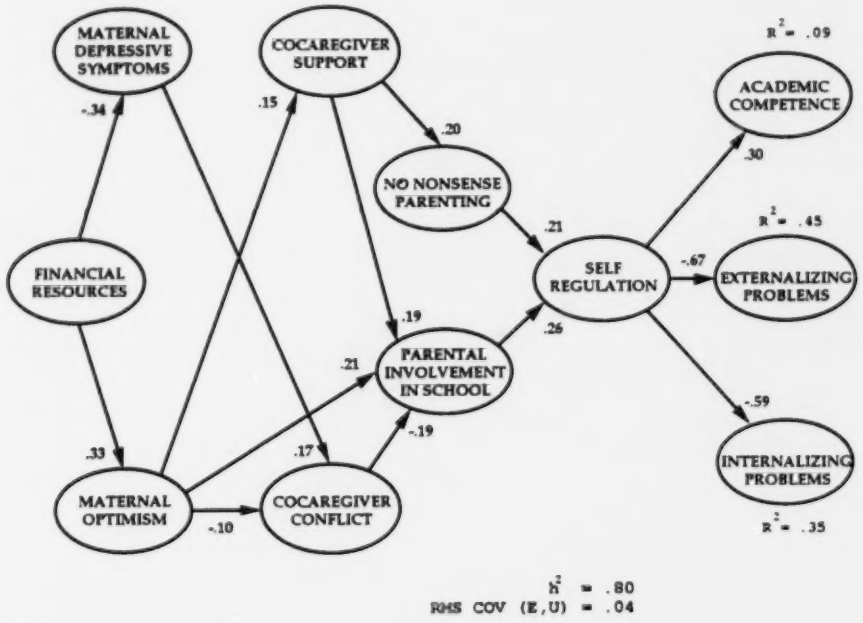
Family Financial Resources, Maternal Psychological Functioning, Family Processes, and Youth Self-Regulation

Additional analyses were executed on wave 1 data to examine the links among financial resources, maternal psychological functioning, family processes, and youth self-regulation. In the first analysis we postulated that less adequate financial resources would be associated with more depression and less optimism among mothers. Maternal psychological functioning, in turn, was proposed as the indirect link through which financial resources would influence co-caregiving relationships. The co-caregiving latent construct, derived from mother and family caregiver assessments, includes 2 dimensions that are hypothesized to influence competence-promoting parenting: caregiver communication and instrumental support, and caregiver conflict. We expected caregivers who are less depressed and more optimistic to be more likely to communicate with one another and to provide one another with instrumental support on childrearing tasks. We further predicted that co-caregiver communication, instrumental support, and conflict would be indirectly associated with youth self-regulation through its association with competence-promoting parenting practices. LVPLS was used to examine the hypothesized relationships.

The findings presented in Figure 5 indicate that greater financial resources were linked with less maternal depression and more maternal optimism. Less maternal depression was associated with less conflict in the co-caregiver relationship, but depression was not related to co-caregiver support or to competence-promoting parenting practices. Mothers who were more optimistic experienced greater co-caregiver support and less co-caregiver conflict. Greater co-caregiver support was linked with the use of more competence-promoting parenting practices and co-caregiver conflict was associated with mothers having less involvement in their children's schooling. More use of competence-promoting parenting practices was associated with more self-regulation, which in turn was linked with greater cognitive competence and fewer externalizing or internalizing problems.

Figure 5



The findings from this analysis, as well as from others performed with data from rural two-parent African American families (Brody et al., 1994), indicate that maternal optimism mediated the links among financial resources, co-caregiver relationship quality, and competence-promoting parenting. Maternal optimism was included as a resilience factor, which we expected to be positively associated with both adequate family financial resources and supportiveness in co-caregiving relationships. The hypotheses were supported. These results suggest that optimism is not merely the "flip side" of depression; it is a unique construct that evinces its own associations with patterns of instrumental assistance and emotional support. These data suggest that optimistic parents may be more likely to deal with financial need and other chronic stressors by creating supportive family relationships. The data also suggest that an optimistic orientation may foster problem-focused rather than person-focused family problem solving styles (cf. Scheier & Carver, 1992).

Optimistic persons may be more likely to attribute family difficulties and other stress-associated problems to situations that are alterable, whereas less optimistic persons may attribute family difficulties to family members' personalities, which tend not to change.

Combining Niches: Parent and Teacher Depression, Rearing and Teaching Practices, and Child Competence: A Pilot Study

Although both psychological (e.g., Bronfenbrenner, 1989) and sociological (Elder, 1992; Sampson, 1992) perspectives on child development emphasize an ecological view that combines family and extrafamilial factors, previous studies have focused primarily on family processes to the exclusion of school factors. Research in which the combined effects of school and family on child competence and adjustment are considered has been hampered because most data sets do not include the information necessary to perform such analyses. This model allows an examination of the direct and indirect contributions of family processes to child competence while controlling for classroom influences, and vice versa. This analysis is possible because LVPLS allows the examination of paths between variables while controlling for the contributions of other variables and paths in the model (Falk & Miller, 1991). This research also extends prior work on family and school effects by focusing on rural communities and African American children in those communities. Virtually all of the past research has focused on families living in large metropolitan neighborhoods. Prior studies have not represented the millions of children residing in small towns and rural population centers. Thus, the proposed continuation helps to fill a void in the literature by investigating the impact of family processes and classroom influences on children living in rural communities.

In addition to the information gathered from the participating children and their families, data were collected from 130 of the children's elementary classroom teachers. If two or more children in the study were in a given classroom, one child was randomly selected for inclusion to avoid the bias that would be created if information from the same teacher were included in the data several times. Both the teachers and the children completed a 5-item measure, drawn from Rutter et al. (1979), to assess the teachers' classroom practices, including disciplinary practices, quality of relationship with the target, and willingness to trust students and involve them in the educational process. The teachers also completed the CES-D as a measure of their own depressive symptoms. A latent construct comprised of teacher and student responses was formed and labeled effective teaching practices. These proximal teacher-student variables have been demonstrated to have a more pervasive impact on school learning than do distal variables such as school and district policies, demographic characteristics, and state policies and programs (Rutter, 1983; Wang et al., 1994). We predicted that, for both mothers and teachers, higher levels of depressive symptoms would be associated with less involved and communicative dealings with children and with more negative and hostile relationships with them. Further, we predicted that competence-promoting childrearing and effective teaching practices would both serve as mediators connecting maternal and teacher psychological functioning to children's self-regulation, and, in turn, to their cognitive and psychosocial competence.

Separate analyses were conducted for the cognitive and psychosocial competence measures. In the cognitive model, mothers who were more depressed were observed to have poorer relationships with their children and were less involved with their children's' schools. These parenting characteristics were in turn associated with less self-regulation among the children. In addition, when more depressed mothers had poorer relationships with their children, the children performed more poorly on the Woodcock-Johnson measure. As in the analyses reported earlier, all parenting constructs were linked with child cognitive competence through their links with self-regulation. In the classroom analyses, both teachers and children reported less effective teaching practices when teachers reported more depressive symptoms. The use of more effective teaching practices despite the teachers' depression levels was linked with greater self-regulation among the children. In turn, more self-regulated children scored higher on the cognitive outcome measures. Thus, reported classroom teaching practices contributed to the development of self-regulation among African American youths apart from the contributions of family processes.

The links in the psychosocial model were similar to those in the cognitive model. Again, more competence-promoting parenting and more effective teaching were associated with greater self-regulation in the children, which was associated with better psychosocial outcomes for them. In addition, reports of more effective classroom practices were associated with higher levels of social competence and lower levels of externalizing problems. These results support the

unique contributions that two contexts of childhood, family and school, make to psychosocial competence for rural African American youth.

Figure 6

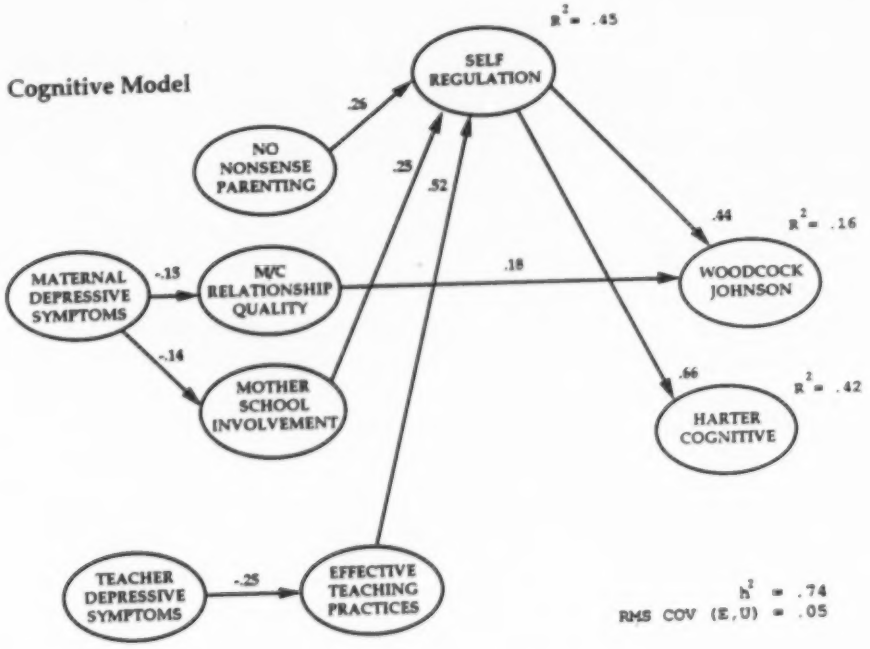
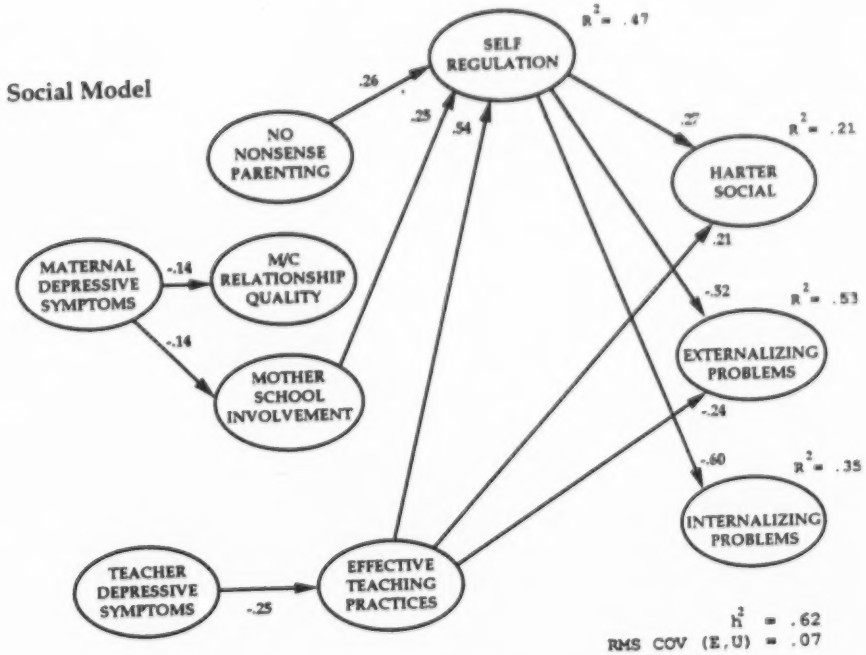


Figure 7



Dissemination

Results were presented at SRCD in 1994. This presentation led to invited talks about further results of this study at the Developmental Psychology Lab at NICHD and the Departments of Psychology at the University of Virginia, Emory University, the University of London, the University of Wales, and the University of Jerusalem. Two manuscripts

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are in press, one in Child Development and one in Developmental Psychology. Two invited chapters are in preparation, one for Michael Lewis and the other for Phil Cowan and James McHale for books that they are editing about families.

Brody, G. H., & Flor, D. (in press). Maternal psychological functioning, family processes, and child competence in rural, single-parent African American families. Developmental Psychology.

Brody, G. H., & Flor, D. (in press). Maternal resources, parenting practices, and child competence in rural, single-parent African American families. Child Development.